



CITY OF SAINT PAUL

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FIRE ALARM SYSTEM GENERAL REQUIREMENTS--RESIDENTIAL

Fire alarm systems shall be installed when the Building Code and Fire Code requirements based on building use and/or construction so determine. The Fire Marshal may also require the installation of alarm systems as a method to improve conditions which are considered hazardous to life and property. Fire alarm systems, when required, shall be installed per detailed requirements of Uniform Fire Code.

A manual and automatic fire alarm system is required in residential buildings three or more stories in height (not to include garden level) or 16 or more units.

1. At least one manual fire alarm box shall be provided at each exit on the first floor, and on each succeeding alternate floor, except that each floor where the area is 10,000 square feet or more shall have one box. Additional boxes shall be provided so that the travel distance to the nearest box is not more than 200 feet. Boxes shall be located in the normal path of exit from an area and shall be unobstructed and readily accessible.
2. Smoke detectors must be provided at the top of each stairwell.
3. Smoke detectors must be provided in corridors within 15 feet of stairwell fire doors and on 30 foot centers thereafter.
4. Heat detectors must be provided in boiler rooms, laundry rooms, storage rooms and maintenance shops.
5. Automatic detection may be required in other areas of common use within the buildings.
6. Sounding devices in corridors on each floor must be audible in all areas of the building (15 decibels above ambient noise level; 75 decibels minimum at pillow).
7. Backup batteries must be of an adequate size to operate the system (Per NFPA 72) and must be supervised.
8. A fire-rated or metal electrical box is required behind all alarm devices on fire-rated walls or ceilings.
9. The alarm panel must be hard-wired to a dedicated circuit with the overcurrent device inaccessible to unauthorized personnel. The overcurrent device must be labeled, "Fire Alarm Panel." The location of the overcurrent device must be marked on the inside of the alarm panel.
10. The manufacturers' information must be given to the owner or owner's representative and remain available at the site.
11. The alarm panel, devices, and cables must be approved for the use, installed in a neat and workmanlike manner, and protected from physical damage.
12. All penetrations of fire-rated ceilings and walls must be fire-stopped after installation.
13. "T" splices are not allowed.
14. A key to the panel, and instructions to reset the system, must be available near the alarm panel or in the Fire Department keybox.

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15. A key/tool to reset the manual fire alarm box must be available in the fire alarm panel. A minimum of two screws and two break glass bars for manual fire alarm boxes must also be available in the panel.
16. Specific zone location and device type must be available at the fire alarm panel.
17. The Fire Alarm Company 24-hour phone number must be posted at the fire alarm panel, along with the owner's name and phone number.
18. If the building contains an automatic sprinkler system, the flow switch must be connected to the fire alarm system. Also, tamper switches must activate the trouble signal at the fire alarm panel.

Three-story buildings with less than ten units may be equipped with an interconnected hard-wired smoke detection system. The smoke detection system shall consist of a minimum of one smoke detector at the top of each stairwell and one in the basement. This system shall be audible to all occupants of the building. The hard-wired smoke detectors must have battery back-up.

In foster and boarding care homes, disconnection of the system must be at the panel or by a code accessible only to care-givers. Plug-in transformers supplying power are allowed only in locations where they can't be disconnected easily.

High-rise residential buildings must meet requirements in Uniform Fire Code Section 14.104 (g) in addition to the above requirements.

NOTE: These requirements are in addition to Minnesota State Statute 299F.362 which requires smoke detectors in each unit.

CHECKLIST FOR FIRE ALARM SYSTEM PERMIT

Submit three sets of plans and specifications together with permit application to:

Building Inspection - Electrical Section (651-266-9003)
350 St. Peter Street, Suite 320
Saint Paul, Minnesota 55101

Call Electrical Inspector (651-266-9003), Building Owner/Manager, and Fire Prevention Inspector (651-228-6230), for final test and permit sign-off. Contractor must schedule inspection within 30 days of completion.

Test scheduled - bring following equipment:

Pre-approved system plans

Two-way radios for communication

Smoke detector testing device (i.e. aerosol smoke, magnet, etc.)

Proper number of personnel for size of the building. (Minimum of two.)

Ladders (if required) to test devices